IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) A bi-directional optical ring network having a first ring network and a second ring networks for providing a protection switching, comprising:

a plurality of nodes, having optical add/drop multiplexers, each being provided on the first and second ring networks and including a demultiplexer and a multiplexer, each of which has a capacity of 1xN;

a pair of switching devices provided across the first and second ring networks and connected between the optical add/drop multiplexers and fiber optic links connected with another node; and

wavelength interleavers, each being provided on both ends of each optical add/drop multiplexer provided on the first and second ring networks and including three ports, of which one port is connected to each switching device and allows for passing signals of all wavelength bands, another port allows for passing only signals of some wavelength bands processed on any one of the first and second ring networks, and the third port allows for passing only signals of the other wavelength bands processed on the other,

wherein the pair of switching devices is configured to loop-back optical signals related to a link failure to one of the first and second ring networks that does not have a link failure when a failure occurs between the nodes via one of the first or second ring networks, and wherein the looped-back optical signals related to the link failure bypass the add/drop multiplexer on said one the first and second ring networks so that each

add/drop multiplexer only multiplexes or demultiplexes optical signals which it must add or drop.

2. (Original) The optical ring network as claimed in claim 1, wherein when the failure occurs at one fiber optic link of any one of the first and second ring networks, any one of the pair of optical switching devices, which is connected to one end of the fiber optic link at which the failure occurs and is located on a transmitting side in a direction toward which the optical signals proceed, switches inputted optical signals to the other one of the first and second ring networks.

3. (Original) The optical ring network as claimed in claim 1, wherein when the failure occurs at one fiber optic link of any one of the first and second ring networks, any one of the pair of optical switching devices, which is connected to one end of the fiber optic link at which the failure occurs and is located on a receiving side in a direction toward which the optical signals proceed, switches inputted optical signals to the other ring network.

4. (Currently amended) A bi-directional optical ring network having first and second ring networks for providing a protection switch, comprising:

a plurality of nodes having optical add/drop multiplexers, each being provided on the first and second ring network and including a demultiplexer and a multiplexer, each of which has a capacity of 1xN;

a pair of switching devices provided across the first and second ring networks

and connected between the optical add/drop multiplexers and fiber optic links connected with another node, each switching device having input/output ports for looping back optical signals of wavelength bands processed on any one of the first and second ring networks, and input/output ports for transmitting optical signals of wavelength bands processed on the other ring network; and

wavelength interleavers, each being provided on both ends of each optical add/drop multiplexer provided on the first and second ring networks and including three ports, of which one port is connected to each switching device and allows for passing signals of all wavelength bands, another port allows for passing only signals of some wavelength bands processed on any one of the first and second ring networks, and the third port allows for passing only signals of the other wavelength bands processed on the other, wherein the pair of switching devices is configured to loop-back optical signals related to a link failure to one of the first and second ring networks that does not have a link failure when a failure occurs between the nodes via one of the first or second ring networks, and wherein the looped-back optical signals related to the link failure bypass the add/drop multiplexer on said one the first and second ring networks so that each add/drop multiplexer only multiplexes or demultiplexes optical signals which it must add or drop.

5. (Original) The optical ring network as claimed in claim 4, wherein when the failure occurs at one fiber optic link of any one of the first and second ring networks, any one of the pair of optical switching devices, which is connected to one end of the fiber optic link at which the failure occurs and is located on a transmitting side in a direction

toward which the optical signals proceed, switches inputted optical signals to the other ring network.

6. (Original) The optical ring network as claimed in claim 4, wherein when the failure occurs at one fiber optic link of any one of the first and second ring networks, any one of the pair of optical switching devices, which is connected to one end of the fiber optic link at which the failure occurs and is located on a receiving side in a direction toward which the optical signals proceed, switches inputted optical signals to the other ring network.

7. (Previously presented) The optical ring network as claimed in claim 1, wherein the pair of switching devices is further configured to pass through optical signals passing through a first or second ring network if no failure occurs between the nodes.

8. (Previously presented) The optical ring network as claimed in claim 1, wherein the pair of switching devices is a 4x4 optical switching device.

9. (Previously presented) The optical ring network as claimed in claim 1, wherein the pair of switching devices is a 2x2 optical switching device.